

## **REMARKS**

The following are our comments in an attempt to support and clarify presented preliminary amendments in our application.

### Comments Relating to Specification Amendments

Amendments to specifications are done to reflect amended drawing (Figs. 6A and 6B). Detailed Description paragraphs 51-59 are replaced with replacement paragraphs 51-59.

### Comments Relating to Claim Amendments

There are no new claims. Claims 25 and 34 are amended by deleting part of the text, while other claim amendments are all done as a response to comments regarding clarity in the International Preliminary Report on Patentability (IPRP). Claims 39-57 are canceled since they are substantially similar (just different wording) to claims 1-24.

### Comments Relating to Drawing Amendments

Application drawing showing an embodiment of invention on Figs. 6A and 6B has been replaced with attachment labeled “Replacement Sheet”. Amended drawing shows the invention applied to the container wall instead of application to the container base.

### Comments Relating to Prior Art Raised in IPRP

The IPRP raised US-A-5,244,106 (TAKACS) 14-09-1993 (document D1) in relation to novelty of claims 25, 26, 28, 30, 31, 33-35, 37 and 38.

As understood by us, and as document D1 – Abstract recite: “A bottle includes a top with removable cap having a height; includes a bottle base, the rim of which defines a plane at the lowermost extremity of the bottle for resting the bottle on a planar surface;” This rim is present on all drawings and is listed in the Drawing Reference Numbers table as number 24, 124 and 524. In the Description of a Preferred Embodiment of document D1, reference to this element is made as rim, rim-ring and flat rim. Because of the rim, retainer and cap stored in the retainer cannot be seen from the side. Also design shown in document D1 cannot sustain pressurized content unless is made of glass and has relatively small diameter of the bottle base, which significantly limits its applicability. Having the full continuous rim in place, as it is shown on all D1 drawings, limits the options regarding recess (retainer) design in regard to cap accessibility in cap well. D1 describes (col. 8 line 45-60) two different approaches to improve finger accessibility to the cap in cap well. First is design of pair finger wells 18 (Figs 1, 3) that meet and merge into the cap well and second is annular well 118 (Figs. 2 & 4). Difficulty with this design is stated in D1 (col. 8 line 60-65) recognizing need for “tight fit” that would require high tolerances for

manufacturers. This tight fit would cause additional difficulty in placing cap in an already not visible cap well. To resolve these problems, D1 describes different cap shapes that should ease removal of the cap from the cap well.

As it is shown in our application on Figs. 7A, 7B, 8A and 8B, there is no rim at the bottle base, channels 633 and 733, also referred to as gaps, form lobes that when applied to bottle base are providing bottle stability. Channels also provide visual contact with the cap stored in the retainer (side view) to additionally facilitate placing and removal of the cap from retainer. However, our design is not limited to the bottle base like D1. As it is shown on replacement drawing Figs. 6A and 6B it can be applied to container wall. If applied to container bottom, this design, beside ability to hold the cap in retainer made of lobes, can resist pressurized content in the bottle by preventing the cap retainer to be inverted. In addition, our application is showing, in every embodiment, an easy finger access to the full side of the cap making redundant any need to modify cap to assist removal of the cap from the retainer. Our innovative cap design has projections close to open side of the cap to achieve deformation of cap when used with cylindrical cap retainer, and does not have any similarity with cap shapes described in D1 and shown on Figs. 5-7 where all caps are featuring grabbing shapes on or close to the closed cap side.

Based on the above reasoning we submit that our claims patentably distinguish D1.

*Further Amendments and Comments*

We made our best effort to follow all the rules and regulations while putting together this Preliminary Amendment. However, this being our first patent application and making this amendment without help of professional, it is possible that we made some unintentional missteps. If that is the case, we are kindly asking for your understanding and guidance.

We are submitting this Preliminary Amendment and we respectfully request to be given one or more additional opportunities to submit amendments and/or arguments, should you raise any objections.

Respectfully submitted,

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Replacement paragraphs:

[0051] Figures 6A-6B illustrate a container **500** and its cap **503** according to yet another embodiment of the invention. ~~Although cap Cap~~ retainer **510** is located ~~on base 505 of container 500 (rather than on container wall 501), container.~~ Container **500** and cap **503** are similar in many other respects to the previously described containers and caps. Features of container **500** and cap **503** that are similar to features of container **100** and cap **103** are provided with similar reference numerals preceded by the digit "5" rather than "1".

[0052] Container **500** differs from the embodiment previously described in that cap retainer **510** comprises a generally circularly symmetric depressed region **510A** (~~rather than an depressed region in this embodiment can also be seen as an elongated slot combination~~), which is located ~~in base 505 of container 500 (rather than in container wall 501)~~. Depressed region **510A** may be formed between a plurality of lobes **531** ~~separated by channels 533, which extend inwardly from a perimeter of base 505. In the illustrated embodiment, lobes 531 comprise bottom surfaces which, together with perimeter region 507 of base 505, allow container 510 to stand upright on a flat surface.~~ In the illustrated embodiment, container **500** comprises three lobes **531** evenly spaced apart around the ~~circularly symmetric shape~~ of depressed region **510A**. In general, the number of lobes **531** may vary, ~~provided that there are one or more lobes 531.~~ In addition, although lobes **531** are preferably evenly spaced about depressed region **510A**, this is not a requirement.

[0053] Cap **503** is inserted directly inwardly into depressed region **510A**. A person simply pushes cap **503** into depressed region **510A** between lobes **531**. Alternatively, ~~for this embodiment, cap 503 can be pushed to slide through channels 533 into the cap retainer 510 like in the embodiments previously described. if cap 503 is located on a surface, a person may place container 500 over cap 503, such that cap 503 is aligned with depressed region 510A and the surface pushes cap 503 into depressed region 510A.~~

[0054] When cap **503** is located in depressed region **510A**, cap **503** is in its storage configuration. The innermost surfaces **531A** of lobes **531** define ~~the circularly symmetric shape of depressed region 510A, which may correspond to the shape of cap 503.~~ The innermost surfaces **531A** of lobes **531** form contact surfaces, which engage outer surface **546** of side portion **546A** of cap **503** to retain cap **503** in its storage configuration. Cap **503** is retained in its storage configuration by frictional forces existing between contact surfaces **531A** and outer surface **546** of side portion **546A** of cap **503**. In addition, cap **503** may be maintained by the pressure associated with the elastic deformation of cap **503** and/or lobes **531**. In such embodiments, the contact surfaces **531A** of cap retainer **510** may exert pressure on cap **503**, such that side portion **546A** of cap **503** is deformed as shown in Figure 6B 6A. As shown in Figure 6B 6A, the radius of side portion **546A** of cap **503** may contract in the region of contact surfaces **531A** and may expand in the regions of gaps **533**.

[0055] Preferably, as shown in Figures 6A-6B, cap **503** is inserted into cap retainer **510** with its cap rim **518** facing into depressed region **510A** and the exterior surface **545** of its top portion **545A** facing ~~downwardly outwardly~~. This orientation of cap **503** in cap retainer **510** promotes hygiene by minimizing the exposure of the cap opening and the interior

surfaces of cap **503** to contamination. In addition, a person may insert and remove cap **503** from cap retainer **510** without handling the interior surfaces of cap **503**. Another benefit with this orientation is that less force is required to deform cap **503** when inserting it into cap retainer **510**, as only the side portion **546A** of cap **503** needs to be deformed and the top portion **545A** of cap **503** need not be deformed. In some embodiments, only the region of side portion **546A** closest to cap rim **518** need be deformed to insert cap **503** into cap retainer **510**. Those skilled in the art will appreciate that the region of side portion **546A** closest to cap rim **518** is more easily deformable than the region of side portion closest to top portion **545A**. This orientation of cap **503** in cap retainer **510** also helps to prevent cap **503** from being permanently warped or broken because of excessive deformation.

[0056] Cap retainer **510** also comprises a number of channels **533** located between lobes **531**. Channels **533** are preferably large enough such that a person may fit one or more fingers in channels **533**. Channels **533** permit a person to use their fingers to access cap **503** when it is stored in cap retainer **510** to facilitate removal of cap **503** therefrom. The person simply grasps side portion **546A** of cap **503** and pulls it directly outwardly from depressed region **510A**. If wide enough, channels **533** can serve as a guide or slot for cap to slide into the cap retainer.

[0057] In the illustrated embodiment, lobes **531** each have a rounded surface **534** at the entrance to depressed region **510A** (see Figure **6A** **6B**). Surface **534** helps to facilitate easy insertion of cap **503** into cap retainer **510**. In addition, the contact surfaces **531A** of lobes **531** are preferably provided with a tapering angle  $\alpha$  (see Figure **6A** **6B**), such that the dimension between contact surfaces **531A** narrows as contact surfaces **531A** extend deeper into recessed region **510A**. Tapering angle  $\alpha$  is measured from a longitudinal axis of container **500**. When cap **503** is inserted into depressed region **510A** in the orientation discussed above, tapering angle  $\alpha$  causes the most deformation to occur in the region of side portion **546A** closest to cap rim **518**. As discussed above, it is easier to deform the region of side portion **546A** closest to cap rim **518** than the region of side portion **546A** closest to top portion **545A**. Deforming this portion of cap **503** also helps to prevent cap **503** from being permanently warped or broken because of excessive deformation. Tapering angle  $\alpha$ , may be selected on the basis of the elastic deformation properties and friction properties of the materials used for cap **503** and cap retainer **510**, such that cap **503** is adequately secured in cap retainer **510** without permanently warping or breaking cap **503**. In some embodiments, tapering angle  $\alpha$  is in the range of  $0\text{--}5^\circ$   $0^\circ\text{--}5^\circ$ .

[0058] Figures 7A-7B depict a container **600** and its cap **603** according to yet another embodiment of the invention. Container **600** and cap **603** are similar in many respects to container **500** and cap **503** described above. Features of container **600** and cap **603** that are similar to features of container **500** and cap **503** are provided with similar reference numerals preceded by the digit "6" rather than "5".

[0059] One difference between container **600** and container **500** is that cap retainer is located on base **605** (rather than on container wall **601**) of container **600** does not have a

~~perimeter region 507~~ and that lobes 631 comprise flat bottom surfaces 609 for supporting container 600 in an upright position when it is resting on a surface. In addition, in the illustrated embodiment of Figures 7A-7B, cap retainer 610 comprises five lobes 631 instead of the three lobes 531 of container 500 of Figures 6A-6B. Those skilled in the art will appreciate, however, that cap retainers 510, 610 may generally comprise different numbers of lobes 531, 631. Although lobes 631 are preferably evenly spaced about depressed region 610A, this is not a requirement. Cap 603 is inserted and removed from cap retainer 610 in a manner similar to insertion and removal of cap 503 from cap retainer 510. Cap 603 is retained in cap retainer 610 by frictional forces between contact surfaces 631A of lobes 631 and outer surface 646 of side portion 646A of cap 603 and/or by pressure associated with the deformation of cap 603 and/or lobes 631. In such embodiments, the contact surfaces 631A of cap retainer 610 may exert pressure on cap 603, such that side portion 646A of cap ~~503~~ 603 is deformed as shown in Figure 7B. As shown in Figure 7B, the radius of side portion 646A of cap 603 may contract in the region of contact surfaces 631A and may expand in the regions of gaps 633.

